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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,048	12/31/2001	Adrian Crisan	H052617.1146US0	2291

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AKIN, GUMP, STRAUSS, HAUER & FELD
711 LOUISIANA STREET
SUITE 1900 SOUTH
HOUSTON, TX 77002

EXAMINER

LABAZE, EDWYN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,048

Applicant(s)

CRISAN, ADRIAN

Examiner

EDWYN LABAZE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-20 are presented for examination.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a key having a first data entry value associated with depressing the key, and the key having one or more additional discrete data entry values associated with deflecting the key in a predetermined direction" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Additional Remarks

The examiner acknowledges the first key 100 of the claimed invention, but respectfully requests the applicant shows integration (i.e. direction, position/zone) of the key 100 operable to be depressed with respect to activation of the other keys (102, 104... 110) from the keypad (see page 4, paragraph 0010 of the specification; and page 14, col.3-8). No new matter should be entered.

Claim Objections

3. Claims 1-20 are objected to because of the following informalities:

The applicant recites the limitation "the key". The examiner understands the claimed invention but request that the applicant differs the key 100 from the keys (104... 110) of the keypad.

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Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-7, 12-13, and 16-20 is rejected under 35 U.S.C. 102(e) as being unpatented by Vanttila (U.S. 6,173,194).

Re claims 1, 12, and 16: Vanttila discloses a data entry device 22 (col.3, line 24), which includes a key having a first data entry value associated with depressing the key 23 (col.3, lines 23-25); the key having one or more additional discrete data entry values associated with deflecting the key in a predetermined direction (col.3, lines 24-36); the key 23 having a user readable indication of each of the one or more additional discrete data entry values (col.3, lines 37-45); and where the key is adapted for being depressed or deflected by a human fingertip

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(col.3, lines 29-36), further includes a key controller system 18 for receiving state data for each key and translating the state data into a data value (col.5, lines 20-67; col.6, lines 1+).

Re claim 2: Vanttila teaches an apparatus, wherein the key first data entry value is a numeric data value and the one or more additional discrete data entry values are alphabetic data values (col.3, lines 37-45).

Re claim 3: Vanttila discloses an apparatus, wherein the one or more additional discrete data values are associated with a predetermined zone/direction around a periphery of the key (col.3, lines 46-54).

Re claim 4: Vanttila teaches an apparatus, wherein the one or more additional discrete data values are associated with an adjustable zone/direction around a periphery of the key (col.3, lines 46-54).

Re claim 5: Vanttila discloses an apparatus, further comprising of a controllable display around the periphery of the key (col.4, lines 1-33).

Re claim 6: Vanttila teaches an apparatus, wherein the controllable display is an LCD 20 (col.4, line 15).

Re claim 7: Vanttila discloses an apparatus, wherein the number of predetermined zones or directions is user selectable (col.3, lines 55-67).

Re claim 13: Vanttila teaches an apparatus, wherein the plurality of keys is a 12-key telephone numeric keypad, and the additional discrete data entry values are alphabetic data values (col.3, lines 38-44).

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Re claim 17: Vanttila discloses an apparatus, further comprising a zone or direction identification system receiving zone data from each key (col.3, lines 46-54) and generating state data from the zone/position data (col.2, lines 7-14).

Re claim 18: Vanttila teaches an apparatus, which further comprising a sequence identification system receiving state data and sequence data from one or more keys and translating the state data and sequence data into the data value (col.2, lines 1-15 and col.4, lines 58-67; col.5 and 6, lines 1-37).

Re claim 19: Vanttila discloses an apparatus, which further comprising a soft key 2B, 2C generation system generating user-readable display data associated with one or more of the keys (col.4, lines 18-33).

Re claim 20: Vanttila teaches an apparatus, which further comprising a soft key identification system translating the data value based on soft key definition (col.4, lines 34-42).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanttila (U.S. 6,173,194).

The teachings of Vanttila have been discussed above.

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Vanttila fails to teach a design with specific key shapes (i.e. square, circular, hexagonal, and octagonal).

However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ different shapes of the key in the system of Vanttila in order to provide to attract consumer's attention. Furthermore, the different shapes and sizes of the key do not carry any unexpected result and novelty; only offer a different look and size of the device. Therefore, such modification would have been an obvious extension as taught by Vanttila.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vanttila (U.S. 6,173,194).

The teachings of Vanttila have been discussed above.

Vanttila fails to teach a design with a three-key watch keypad.

However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to utilize a contracted three-key keypad version in the system of Vanttila wherein each key carry four states (i.e. the first key has functions "1, 2, 3, and 4"). Furthermore, the above system can be compared and substituted with different design either of "a three-key" or "a four-key" keypad wherein each key can be programmed to display or depress one or more numeric data values. Moreover, such modification would have been an obvious extension of the teaching of Vanttila, therefore an expedient.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vanttila (U.S. 6,173,194) as modified in claim 14 above, and further in view of Dodd (U.S. 6,127,949).

The teachings of Vanttila as modified in claim 14 above have been discussed.

Vanttila as modified in claim 14 above fails to teach a Qwerty keyboard.

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Dodd teaches an ergonomic computer keyboard, which includes a Qwerty keyboard (col.10, lines 37-55).

In view of the teaching Dodd, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ a Qwerty keypad into the teachings of Vanttila as modified as claim 14 above so as to maintain the conventional layout by separating the alphabetic data entry values to one side and the numeric data entry values on the other side of the keyboard. Furthermore, such modification would be beneficial to the user in helping reducing stress of the fingers and wherein multiple data entry values (i.e. alphabetic or numeric) could be programmed one key on the keypad, and user selectable without typing expertise. Moreover, such modification would have been an obvious extension of the teaching of Vanttila as modified above in claim 14.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Strauch et al. (U.S. 5,861,823) discloses data entry device having multifunction keys.

Smith (U.S. 5,982,303) teaches numeric for entering alpha-numeric data.

Montgomery (U.S. 6,441,753) discloses a multi-function key assembly for an electronic device.

Krishman (U.S. 6,377,685) teaches a cluster key arrangement.

Selker et al. (U.S. 5,521,596) discloses an Analog input device located in the primary typing area of a keyboard.

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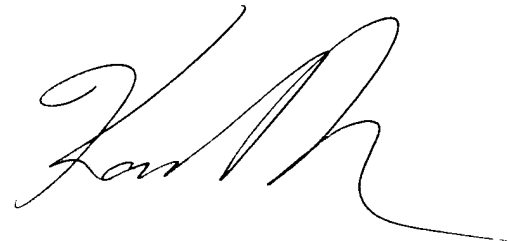
Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (703) 305-5437.

The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

el
Edwyn Labaze
Patent Examiner
Art Unit 2876
February 8, 2003



KARL D. FRECH
PRIMARY EXAMINER